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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,353	08/09/2001	Daniel M. Dias	FR91990105US1	4341

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EXAMINER
DIVECHA, KAMAL B

ART UNIT	PAPER NUMBER
2151	

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DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/925,353	DIAS ET AL.	
	Examiner	Art Unit	
	KAMAL B. DIVECHA	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☒ Claim(s) *1,2 and 4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 August 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method comprising the steps described in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Client_1, Client_2, Client_3 and Client_4 of figure 2 are not described in the detailed description of figure 2.
- Client_2 and Client_4 of figure 5 are not described in the detailed description of the preferred embodiment.
- In general, Client_2 and Client_4 is not described anywhere in the disclosure.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:

5. On page 7, line 14, it has been stated that http header hereafter would be referred to as "NCS-Control" http header and;

6. On page 8 lines 1, 26, 27, page 9 line 2, page 10 line 3, applicant has used the term "http header" instead of using the term NCS-Control http header.

7. On page 10, line 5: the server name "Mercury" and the reference numeral "420" does not correspond to each other. In figure 2, the reference numeral corresponding to server called Mercury is shown to be 212. And reference numeral 420 is a command passed from the NCS to the one of the server of the cluster called Hercules.

8. On page 11, line 12: the term "cluster" and reference numeral "540" are misleading. Cluster is being referred to as 220 in figure 2 and in figure 5, "540" has been shown as a message passed from NCS to the server called Mercury.

9. Claims 1, 2 and 4 are objected to because of the following informalities:

- The phrase "the Hyper Text transport Protocol" lacks antecedent basis on line 2 of claim 1.
- The colon at the end of line 4 appears unnecessary in claim 1.
- The phrase "the scope" lacks antecedent basis on line 6 of claim 2.
- The phrases "the rate" on line 2 and 4, and "the number of jobs" on line 6 and 8 of claim 4 also lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1, 2, 3, 4, 5, 6, 7 and 8 are rejected under 35 U.S.C. 112, second paragraph.

12. Claims 1-8 are rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, the steps described in the body of the claim does not perform the method for enhancing load controlling as claimed in the preamble of claim.

13. There is insufficient antecedent basis for the following limitations in the claims.

- Claim 1 recites the limitation "said received instructions" in line 7.
- Claim 2 recites the limitation "said directive" in line 6.
- Claim 5 recites the limitation "said information sharing" in line 4.
- Claim 6 recites the limitation "said resources" in line 3.

14. Claim 8 is further rejected considering its not further limiting.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as anticipated by Brendel et al (US 5,774,660).

17. With respect to claim 1, Brendel discloses a method for enhancing load controlling of a web site including a plurality of individual servers (figure 6) and a network Control Scheduler (NCS) (figure 12; column 18, lines 11-12), said Web site using the Hyper Text Transport Protocol (HTTP) (figure 12), said method comprising the steps of:

- in any one server out of said plurality of individual serves (column 15, line 12);
- issuing instructions to said NCS (column 13, lines 9-11);
- receiving said instructions in said NCS from said any one server (column 13, lines 47-48); and
- complying with said received instructions (column 8, line 56; figure 11B).

18. With respect to claim 2, Brendel further discloses:

The method as set forth above wherein the step of issuing instructions includes the step of:

Passing said instructions to said NCS in a NCS-control HTTP header (column 12, lines 48-50), said passing step further including the steps of:

- Including directives to be obeyed by said NCS (column 12, lines 30-33); and
- Optionally including a filter to limit the scope of applications of said directive (column 8, lines 43-49).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claims 3 and 4 are rejected under 35 U.S.C. 103 (a) as being obvious over Brendel et al. (US 5,774,660) in view of Pavan et al. (US 6,801,943 B1).

Brendel et al. discloses all the limitations of claim 1 and claim 2 as set forth above.

However, with respect to claim 3, Brendel et al. does not disclose explicitly the three categories of directives namely flow-control directive, sharing directive and NCS-queuing directive.

Pavan et al. explicitly discloses a network scheduler for real time applications which:

- Directly controls scheduling of packets of real time applications (read as flow-control primitive, see column 4 lines 51-54);
- Schedules the use of a shared resource (read as sharing primitive, see column 4 lines 5-6);
- Uses the instructions (primitives) to perform the following functions: hold a queue of packets, release a queue of packets, check the population of a queue, check a deadline

of a packet at the head of a queue, and check the priority of a packet (read as queue management directory, see column 4 lines 14-19 and figure 6).

Brendel et al. and Pavan et al. are analogous art because they are directed to a similar problem solving area of load balancing of distributed real time tasks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Brendel et al. as stated above with the network scheduler of Pavan et al. for balancing the network load more appropriately.

In addition, the motivation for doing so would have been so that to obtain a mechanism to guarantee correct scheduling order of real time tasks and achieve the basic control of critical traffic of real time tasks and improve the utilization of load balancer.

Therefore, it would have been obvious to combine Pavan et al. with Brendel et al. for the benefit of Dias to obtain the invention as specified in the claim.

21. With respect to claim 4, neither Brendel et al. nor Pavan et al. teaches the limitations as stated in the claim, But it would have been obvious to the one skill in the art to incorporate the limitations found in the claim for the purpose of reducing the network congestion, enhancing the reliable flow control and improving the overall processing speed of the request.

22. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brendel et al. in view of Pavan et al. as applied to claim 3 above, and further in view of Colby et al. (US 6,625,643 B1).

Neither Brendel et al. nor Pavan et al. explicitly disclose the limitations disclosed in claim 5.

Colby et al. discloses a method of broadcasting at least one data stream over a data network (read as share directive aimed at enabling an information sharing within all members of said plurality of servers and NCS in that network, see column 34 lines 45-46) comprising the steps of scheduling, allocating network resources, setting up network interconnections and automatically tracking at least one operation of at least one component in the data network (column 34, lines 47-54). Colby also teaches the topology manager messaging system and he further provides functions and their tables in column 13-23.

Referring to column 16 lines 40-42, Colby et al. teaches the functions called Clear streams, which is used to instruct the title managers to clear the streams for the event and release their resources.

Colby et al. also teaches the request-recast server message used to request recaster service (read as sharing, see column 17 lines 1-5).

Brendel et al. in combination of Pavan et al. and Colby et al. are analogous art because they are directed to a similar problem solving area of load balancing of distributed real time tasks.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Colby et al. as stated above with the network scheduler of Brendel et al. and Pavan et al. for better scheduling practices because it would have reduced network congestion, improved network latency, increased network bandwidth, controlled the importance and confidentiality of the information and in general improved the efficiency of the scheduler.

Therefore, it would have been obvious to combine Colby et al. and Brendel et al. in view of Pavan et al for the benefit of Dias to obtain the invention as specified in the claims.

23. As to claim 6, Pavan et al. teaches the HOLD and RELEASE primitives or directories (column 5, lines 18, 26-42), which are analogous to LOCK and UNLOCK directives of claim 6.

24. As to claim 7, Pavan et al. teaches a Network Scheduler that uses the instructions (primitives) to perform the following functions: hold a queue of packets, release a queue of packets, check the population of a queue, check a deadline of a packet at the head of a queue, and check the priority of a packet (column 4, lines 14-19). And further Pavan et al. claims that one skilled in the art will recognize that the network scheduler can be adapted to schedule the use of other shared hardware or software resources (column 4, lines 57-59).

25. As to claim 8, Pavan et al. describes a machine-readable medium comprising machine-readable instructions for causing a computer to perform the method or functions mentioned in his invention (column 4 lines 65-67 through column 5 lines 1-2; column 6 lines 61-64; column 8 lines 25-27).

Additional References

26. The Examiner as of general interest cites the following references:

a. Basani et al., U.S. Patent No. 6,718,361 B1.

b. Albert et al., U.S. Patent No. 6,549,516 B1.

c. Bruck et al., U.S. Patent No. 6,801,949 B1.

d. Wolf et al., U.S. Patent No. 6,374,297 B1.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is N/A. The examiner can normally be reached on 8.30am-5.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Zarni can be reached on 703-308-6687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner Kamal Divecha

Art Unit 2151

10/14/2004

ZARNI MAUNG
PRIMARY EXAMINER